



# *A Message* FROM THE DEAN

By Dr. David Graham



PBL PHOTOGRAPHY

A former colleague once remarked to me that one of the most wonderful things about being a university professor is that the contact with so many bright young people can have a powerful rejuvenating effect. It is certainly

true that trying to keep abreast of the ever-increasing pace of change in popular culture can be dizzying – as another former colleague once told me, he realized he needed to change his course notes when he noticed that his references to the songs of Elvis Presley were no longer resonating with students who had been born after the King had left the building for the last time! Today's first-year students were born about the time that the Berlin Wall was coming down: instead of growing up with the Cold War, the Vietnam or Korean Wars, or the World Wars, they are the generation of the Gulf War, of saturation television coverage, of pervasive instant messaging, online chat, social networking through Facebook and MySpace, always-on computing, and downloadable, shareable multimedia.

Many of their experiences and expectations are not those of yesterday's students, and professors can find teaching them both challenging and exhilarating. Challenging, in that many of our disciplines are based on grasping the knowledge and the implications of the past,

whose relevance they may not immediately see; exhilarating, because they are so quick to see the implications of today's rapid social and technological evolution for the future. Some professors may find themselves tempted to ban all laptop computers and handheld devices from the classroom, in part because some students spend so much time texting their friends; others will enjoy being pushed harder than ever by good students with tough questions, students who can instantly go online in the midst of a lecture to check whatever their professors say and question them if it does not match the received wisdom of Wikipedia. This is a world where notions of professorial, intellectual and moral authority shift and change with protean malleability.

This issue of *Connections* focuses on Faculty initiatives that will have an impact not on these students, but on the next generation, who are young children now. Many of these children will be entering university a decade or more from now. This generation will likely reach young adulthood at a time when the boundaries between the online and offline will mean even less than they do today, when the frontiers between the virtual and the concrete worlds will have blurred to such an extent that it will be increasingly hard to distinguish between them. What will their expectations be, and how will our Faculty evolve to meet them? That is the great challenge university educators must meet, and the Arts and Science faculty and staff who work with today's children are, in one way or another, at the forefront of helping us prepare to do so.

# *Connections*

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The Voice of Concordia University's Faculty of Arts and Science

# *The Value of* **OUTRE**

By Miriam Posner  
Supervisor, Technical  
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# A C H

It is an increasingly happy sight to see, for two intensive summer weeks each year, so many elementary-school-aged youngsters at Concordia University's Loyola Campus enjoying activities specifically designed to spur interest in science and technology.







What do they do? Activities include a visit to the Department of Biology's fish labs, complete with holding tanks and stream channels, visits to the labs in the Department of Chemistry and Biochemistry, where test tubes and beakers are filled with intriguing and colourful compounds, or to the Department of Exercise Science's lab, where they can test their physical strength in a fully equipped gym. How do they react? Judging by the ooh's and aah's, the children who visit our premises are filled with excitement and awe as they discover the mysterious world of science and technology.

This is only one of the many initiatives our departments undertake to introduce scientific and technological concepts to children. For many years, science departments have partnered with community organizations, schools and camps in an effort to foster an appreciation for, and understanding of, the important role science and technology plays in our everyday lives.

Among our many endeavours, the Department of Chemistry and Biochemistry, along with other science departments and together with departments in the Faculty of Fine Arts and the Faculty of Engineering & Computer Science, bring about "Exposcience," a collaboration between Concordia University and Stewart Hall, Pointe Claire's cultural centre. It is a weekend loaded with hands-on interactive and educational activities as well as fascinating demonstrations for young and old alike. We have also been involved for well over a decade in working with members from the Reach Summer Science Camp, a

Montreal-based science and discovery camp, to co-ordinate activities on campus.

This year, we added a new event to our repertoire. Students, faculty and staff of the Department of Chemistry and Biochemistry and the Department of Physics were proud to be part of the "EUREKA Festival," an initiative of the Montreal Science Centre designed to celebrate the wealth and diversity of science-related activities in Montreal, held this past June at the Quays of the Old Port.

**Children are the most obvious place to start in terms of making science more approachable.**

More than 45,000 individuals attended the Festival and thousands visited our booth, where children's faces lit up as they experienced "hands-on" how spacecraft are navigated and change orbit using a very simple "on-board" device, explored first-hand the ancient art of paper folding, or tested their paper-making skills.

Whether working with Reach Summer Science Camp or Stewart Hall, participating at the EUREKA Festival, serving as judges at regional science fairs or as mentors for





elementary and high school students in the preparation of science projects, the end result is the same. By participating in community events, faculty members and enthusiastic staff, as well as undergraduate and graduate students, actively foster the curiosity and critical thinking essential to the development of a new generation of budding scientists.

The value of community outreach cannot be overstated. It has a profound impact on the children who attend the events, the students, faculty and staff who participate, our university and, ultimately, the very society in which we live. Science and technology, by their very nature, can be seen as intimidating subjects and the onus of altering this perception falls upon our educational institutions. Children, by their nature, are most amenable to opening up to new experiences and ideas and thus are the most obvious place to start in terms of making science more approachable. By promoting a fascination with physics or chemistry, to name but two, we create lifelong learners in the sciences, we impart the importance of research and research skills, and we provide a greater understanding of our world and our place in it. What better way to achieve these results than through the knowledge and influence of our very own students. They may be seen as role models whom children may very well want to emulate; in turn, our students then become the teachers, creating a cycle of learning and teaching, and thus recruiting more students to science and technology.

# the observation *Nursery*

## a home away from home

Since its inception some 20 years ago, the Department of Education's Observation Nursery has played an important role in shaping the lives of the children and families who have participated in its constructivist, play-based program.

The nursery, which accepts 10–12 children every year, strives to help children have a positive first experience away from home. This is accomplished by giving parents a unique opportunity to observe and participate in the process, to learn about the value of play and to interact directly with Fiona Rowlands and Andrea Bruno, teachers who work in the Observation Nursery. Parents develop an in-depth understanding of their child's skills, through weekly observations and discussions with Harriet Petrakos, acting director of the Observation Nursery and assistant professor, Department of Education. Parents are encouraged to initiate discussions about issues that are pertinent to them, such as concerns they may have about their children entering the school system. All of this ensures that the children who participate in the program develop a positive attitude towards learning, as well as good social skills, and have enjoyable classroom experiences.

The nursery also provides hands-on experience for students in the Department of Education. On most Tuesday mornings, for example, students taking the observation course can watch the nursery in action, discuss curriculum issues and learn observation skills. In addition, on Thursday mornings, students taking the child-parent-teacher communication course participate in a discussion period in the parent seminar room. Parents, along with a qualified instructor and students, discuss various issues related to child rearing. Whether observing their child at play, interacting with their child in the many activities that take place, or communicating with fellow parents or future teachers, one thing is certain: the families who participate in the program develop a strong sense of community and friendships that last a lifetime.

To learn more about the Observation Nursery, visit our website at <http://doe.concordia.ca/nursery.php> or call the Department of Education at 514-848-2424 ext. 2004.



CONCORDIA'S

# Physical Activity Program

## FOR OBESE CHILDREN

By Dr. Joanna Komorowski, Assistant Professor, Department of Exercise Science



According to the *National Longitudinal Survey of Children and Youth* over one-third of Canadian children aged 2 to 11 are overweight and, of these, about half could be considered obese. The Québec en Forme project, which compared recent findings with those from 1981, indicates a substantial increase in body fat and decline in physical fitness in children in this province. When you consider that excess fat has been associated with childhood metabolic syndrome and type 2 diabetes, something that was unheard of in children 20 to 30 years ago, it is cause for great concern. Excess fat has also been linked with early cardiovascular changes leading to hypertension and heart disease. In fact, evidence from the Institut de la Statistique du Québec indicates that almost 25 per cent of 9-year-olds and 50 per cent of 16-year-olds in Quebec are at risk of heart disease in adulthood because of such lifestyle factors as obesity and physical inactivity. Clearly, this is a phenomenon that must be addressed.

Since obesity-related health risks appear early and track from childhood into adulthood, there is an urgent need to develop interventions that could erase or diminish these risks before they are well established. However, while the observational studies emphasize the role of physical inactivity in the etiology of obesity, there exist only a limited number of intervention studies on physical activity and obesity in children. Most of these studies concentrate on aerobic exercises requiring sustained movement of body mass over distance. Unfortunately, many obese children perform such exercises with difficulty, because of a greater effort required to move their larger body mass in space, their often less proficient motor skills and lower fitness levels. As a result,

exercise performance of these children is frequently poorer than that of non-obese children.

In an effort to address the physical activity needs of obese children, my students and I have developed an alternative exercise intervention. This intervention is based on a weight-stable, individualized resistance exercise program. While the program does contain elements of aerobic training it relies mainly on static exercises with medicine balls, low to moderate weights and resistance machines, adapted to the skills and motor development of each of the participating children. Due to the nature of resistance training, the children improve motor skills, gain strength and visibly improve performance, thus motivating them to be active. The excellent compliance record observed in this study is undoubtedly related to the progress made by the children and the dedication and skills of their student trainers. We cooperate on the project with Dr. Laurent Legault, a pediatric endocrinologist from the Montreal Children's Hospital. The screening and testing, before and after the intervention, takes place in both centres. Since the study is still in progress, we cannot make any definitive statement concerning the results of the study. However, based upon the findings to date, the results appear to be very encouraging. If we extrapolate the findings from studies with adults, the researchers hypothesize that the resistance exercise program will significantly improve body composition and decrease obesity-related health risks in children. The researchers believe that resistance exercise training should become a part of school and community exercise programs for children.

*For information regarding participation in the study please contact Dr. Joanna Komorowski at [jkomorow@alcor.concordia.ca](mailto:jkomorow@alcor.concordia.ca) or Hanen M'kaour at [Hanen.Mkaouar@muhc.mcgill.ca](mailto:Hanen.Mkaouar@muhc.mcgill.ca).*



# undergraduate RESEARCH DAY

The Faculty of Arts and Science hosted its first Undergraduate Research Day on Friday, March 23, 2007. Some 73 undergraduate students participated in the inaugural event, which featured poster and oral presentations on topics from the social sciences, humanities, and natural and health sciences.

Congratulations to the 18 students who received awards for their outstanding presentations!

## POSTER PRESENTATIONS

### Humanities:

- Silvia Mihutescu, Department of History, 1<sup>st</sup> prize
- Ive Cartier, Département d'Études françaises, 2<sup>nd</sup> prize
- Jacqueline Peters, Department of Classics, Modern Languages and Linguistics, 3<sup>rd</sup> prize

### Natural and Health Sciences:

- Stamatina Kolokythas, Department of Biology and Department of Chemistry and Biochemistry, 1<sup>st</sup> prize
- Julie Coutya, Department of Psychology, 2<sup>nd</sup> prize
- Sarah Partridge, Department of Biology, 3<sup>rd</sup> prize

### Social Sciences:

- Elizabeth Grégoire, Department of Sociology and Anthropology, 1<sup>st</sup> prize
- Anna Vu, Department of Sociology and Anthropology, 2<sup>nd</sup> prize
- Matthew Shuster, Department of Geography, Planning and Environment, 3<sup>rd</sup> prize

## ORAL PRESENTATIONS

### Humanities:

- Mathieu Trudeau, Département d'Études françaises, 1<sup>st</sup> prize
- Anastasia Jones, Department of History, 2<sup>nd</sup> prize
- Michael Barkey, Department of Classics, Modern Languages and Linguistics, 3<sup>rd</sup> prize

### Natural and Health Sciences:

- Kristin Anderson, Department of Psychology, 1<sup>st</sup> prize
- Fei Xu, Science College, 2<sup>nd</sup> prize
- Jessica Lynn Ethier, Department of Biology, 3<sup>rd</sup> prize

### Social Sciences:

- George Paul Meiu, Department of Sociology and Anthropology, 1<sup>st</sup> prize
- Carol Johnson, Department of Education, 2<sup>nd</sup> prize
- Adam Briand, Department of Political Science, 3<sup>rd</sup> prize

*This event was co-sponsored by CIHR and NSERC.*



# Snapshots

Congratulations to **Josée Malenfant**, undergraduate student in translation, for having been awarded the Prix Mary Coppins by the Ordre des traducteurs, terminologues et interprètes agréés du Québec for the best undergraduate student in translation.

**Tamanna Howlader**, graduate student in the Department of Mathematics and Statistics, was awarded the Travel Award by the Section on Statistics in Epidemiology at the Joint Statistical Meetings 2007, held in Salt Lake City, Utah, in July. Tamanna won the award for her presentation of a paper she co-authored with **Dr. Michal Abrahamowicz**, McGill University, and **Dr. Yogendra P. Chaubey**, Concordia University, titled "Using Surrogate Outcomes for Improving Power to Detect Gene-Environment Interactions."

**Dr. Adam S. Radomsky**, Associate Professor, Department of Psychology, was awarded the 2007 Canadian Psychological Association President's New Researcher Award for his article "Repeated checking really does cause memory distrust" and in recognition of the exceptional quality of his contribution to this field.

**Marie-Douce St-Jacques**, a graduate student in the MA in littératures francophones et résonances médiatiques program, was awarded the Prix Pierre-et-Yolande Perrault.

Psychology doctoral student **Naomi Grunzweig** won gold at this year's Canadian Student Health Research Forum (CSHRF) for her presentation, "Autonomy and mutuality during middle childhood in high-risk families: Links to aggression, social withdrawal, and child outcomes across generations." She represented Concordia in the CSHRF's National Student Research Poster competition and won an award of excellence in the Gold category for her research contribution.

Concordia professor **Jane Stewart**, Department of Psychology, has been appointed as Officer of the Order of Canada. The Order of Canada was established in 1967 to recognize outstanding achievement and service in various fields of human endeavour. It is our country's highest civilian honour for lifetime achievement.

Congratulations to **Stamatina Kolokythas**, award winner in the undergraduate poster competition at the 91st Canadian Chemistry Conference, organized by the Canadian Society for Chemistry, which was held in May 2007. Stamatina, who represented both the Department of Biology and the Department of Chemistry and Biochemistry at the conference, won the award for her work studying how bacteria survive under harsh environmental conditions by expressing proteins to allow for the uptake of iron as a nutrient.



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